

REMARKS/ARGUMENTS

Claims 1-14 were pending in the present application. No claims have been cancelled, amended, or added by this response. Accordingly, claims 1-14 are currently under consideration. Amendment and cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. No new matter has been added.

Concerning the Drawings

The attached sheet of drawings includes changes to Figure 1. In particular, in response to the Examiner's objection, Figure 1 now includes the caption "Prior Art". Applicant believes this overcomes the Examiner's objection.

Rejections under 35 U.S.C. §103(a)

Claims 1,2, and 4 are rejected as allegedly being unpatentable over U.S. Patent No. 6,327,376 B1 to Harkin ("Harkin") in view of U.S. Patent No. 6,401,551 B1 to Kawahara et al. ("Kawahara et al 551"). Applicant respectfully traverses this rejection because at least one element of claims 1, 2 and 4 are not disclosed in either cited reference.

Claim 1 recites at least a liquid crystal display (LCD) and fingerprint capture panel including an LCE part and a light-sensing fingerprint capture sensor arranged on the same plane, the LCD part and the light-sensing fingerprint capture sensor being simultaneously arranged through the same manufacturing process, and a backlight used for the LCD part and the fingerprint capture sensor.

The Office Action asserts that Harkin discloses a "fingerprint reading device that is of a light-sensing type (optical sensing device, 60)". That is, a light-sensing device that reads fingerprint ridge and valley data. While optical sensing device 60 may depend on light for its operation, it is not a fingerprint capture sensor. Rather, Harkin discloses a "fingerprint sensing device of the capacitive sensing kind". (Col. 5, lines 54-56). The optical sensing device 60 does not act as a fingerprint sensing device as required by claim 1. In particular, Harkin discloses that optical

sensing device 60 can act as a pulse oximeter (col. 8, lines 1-2), temperature or spectral sensor (col. 8, lines 24-29), or finger presence sensor (col. 8, lines 45-48). Nowhere, however, does Harkin disclose that optical sensor 60 is a fingerprint sensor for reading fingerprint ridge and valley data.

Further, nowhere does Kawahara et al. 551 disclose an optical fingerprint capture sensor. As such, claim 1 cannot be rendered obvious by Harkin in view of Kawahara et al. 551 or any hypothetical combination thereof because neither reference discloses a light-sensing fingerprint capture sensor as required by claim 1. Applicant, therefore, respectfully requests withdrawal of this rejection.

Claims 2 and 4 are each dependent on claim 1. Thus, neither can claims 2 or 4 be rendered obvious by Harkin in view of Kawahara et al. 551 and Applicant respectfully requests withdrawal of this rejection.

Claim 3 is rejected as allegedly being unpatentable over Harkin in view of Kawahara et al. 551 further in view of U.S. Patent No. 6,462,563 to Kawahara et al. ("Kawahara et al. 563"). Applicant respectfully traverses this rejection.

Claim 3 is dependent on claim 1. As discussed above, claim 1 recites a light-sensing fingerprint capture sensor which is disclosed neither by Harkin nor by Kawahara et al. 551. Further, neither does Kawahara et al. 563 disclose a light-sensing fingerprint capture sensor. Accordingly, claim 3 cannot be rendered obvious by Harkin in view of Kawahara et al. 551 further in view of Kawahara et al. 563. Applicant, therefore, respectfully requests withdrawal of this rejection.

Claims 5-7 and 9 are rejected as allegedly being unpatentable over Kawahara et al. 551 in view of WO-01/69520A2 to Lan ("Lan") and further in view of U.S. Patent No. 6,501,529 B1 to Kurihara et al. ("Kurihara et al."). Applicant respectfully traverses this rejection.

Claim 5 of the present application recites at least an LCD and fingerprint capture panel having a backlight and a thin film transistor panel attached to a top of the backlight, the TFT panel

including an LCD part formed in a region of the TFT panel and a fingerprint capture part formed in the remaining region of the TFT panel.

The Examiner asserts that it would have been obvious to one skilled in the art to modify the TFT panel including a fingerprint capture part of Kawahara et al. 551 to include a backlight. The Applicant respectfully disagrees. While Lan may disclose an optical sensing device for imaging a fingerprint surface, the fingerprint sensor of Kawahara et al. 551 is an “electrostatic capacity type fingerprint reading sensor” (col. 1, lines 40-42) and, thus, does not require a backlight for operation. Indeed, nowhere does Kawahara et al. disclose any device that would require a backlight for operation. Thus, one skilled in the art would have no motivation to include a backlight in the device disclosed in Kawahara et al 551 because it would serve no purpose and would likely only add expense, size and weight. Further, Kurihara et al. provides no such motivation. Because there is no motivation to combine Kawahara et al. 551 and Lan, claim 5 cannot be rendered obvious in view of the references and Applicant respectfully requests withdrawal of this rejection.

Claims 6, 7 and 9 are each dependent on claim 5. Thus, neither can claims 6, 7 and 9 be rendered obvious by Kawahara et al. 551 in view of Lan and further in view of Kurihara et al. and Applicant respectfully requests withdrawal of this rejection.

Claim 8 is rejected as allegedly being unpatentable over Kawahara et al. 551 in view of Lan and further in view of Kurihara et al. and further in view of Kawahara et al. 563. Applicant respectfully traverses this rejection.

Claim 8 is dependent on claim 5. And, as discussed above, one skilled in the art would have no motivation to combine Kawahara et al. 551 and Lan to form a fingerprint sensor of Kawahara et al. 551 having a backlight. And, neither Kurihara et al. nor Kawahara et al. 563 provide any motivation for doing so. Accordingly, claim 8 cannot be rendered obvious by the cited references and Applicant respectfully requests withdrawal of this rejection.

Claims 10-12 and 14 are rejected as allegedly being unpatentable over Kawahara et al. 551 in view of Lan and further in view of U.S. Patent No. 6,552,764 B2 to Fujioka et al. ("Fujioka et al.").

Claim 10 recites at least an LCD an fingerprint capture panel having both a data display function and a fingerprint capture function and including a backlight and a thin film transistor (TFT) panel attached to a top of the backlight and including an LCD part formed in a region of the TFT panel and a fingerprint capture part formed on a region of a color filter covering a region in which the LCD part is not formed.

The Examiner asserts that it would have been obvious to one skilled in the art to modify the TFT panel including a fingerprint capture part of Kawahara et al. 551 to include a backlight. The Applicant respectfully disagrees. While Lan may disclose an optical sensing device for imaging a fingerprint surface, the fingerprint sensor of Kawahara et al. 551 is an "electrostatic capacity type fingerprint reading sensor" (col. 1, lines 40-42) and, thus, does not require a backlight for operation. Indeed, nowhere does Kawahara et al. disclose any device that would require a backlight for operation. Thus, one skilled in the art would have no motivation to include a backlight in the device disclosed in Kawahara et al 551 because it would serve no purpose and would likely only add expense, size and weight. Further, Fujioka et al. provides no such motivation. Because there is no motivation to combine Kawahara et al. 551 and Lan, claim 10 cannot be rendered obvious in view of the references and Applicant respectfully requests withdrawal of this rejection.

Claims 11, 12 and 14 are each dependent on claim 10. Thus, neither can claims 11, 12 and 14 be rendered obvious by Kawahara et al. 551 in view of Lan and further in view of Fujioka et al. and Applicant respectfully requests withdrawal of this rejection.

Claim 13 is rejected as allegedly being unpatentable over Kawahara et al. 551 in view of Lan and further in view of Fujioka et al. and further in view of Kawahara et al. 563.

Claim 13 is dependent on claim 10. And, as discussed above, one skilled in the art would have no motivation to combine Kawahara et al. 551 and Lan to form a fingerprint sensor of

Kawahara et al. 551 having a backlight. And, neither Fujioka nor Kawahara et al. 563 provide any motivation for doing so. Accordingly, claim 13 cannot be rendered obvious by the cited references and Applicant respectfully requests withdrawal of this rejection.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no.40430-20008.00. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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Attachments